

on a cathode pedestal 32 supplied with RF power from a first RF power supply 34 to create a DC bias. A silicon ring 36 surrounds the pedestal 32 and is controllably heated by an array of heater lamps 38. A grounded silicon wall 40 surrounds the plasma processing area. A silicon roof 42 overlies the plasma processing area, and lamps 44 and water cooling channels 46 control its temperature. In the described embodiments, the silicon roof 42 is grounded, but it may be separately RF biased for other applications. The volume of the vacuum processing chamber is about 23 liters. The temperature-controlled silicon ring 36 and silicon roof 42 may be used to scavenge fluorine from the fluorocarbon plasma. For some applications, fluorine scavenging can be accomplished by a solid carbon body, such as amorphous or graphitic carbon, or by other non-oxide silicon-based or carbon-based materials, such as silicon carbide.

Paragraph at page 13, line 23 to page 14, line 13:

A C_4F_6 process flow window was established in a SAC structure for a lower bias power of 1400W. At 10sccm of C_4F_6 , the oxide etch rate is slow, but the nitride corner selectivity is very good. At 12sccm, the etch rate has improved, and this would probably represent the best C_4F_6 flow. At 14sccm, a little oxide bottom corner tapering is observed. At 16sccm, etch stop in the small side gap is beginning but is not severe. However, at 20sccm, the etch stop is complete at about half way down the small side gap. Thus, a total flow window of about 4sccm is observed at a C_4F_6 flow of 12sccm, that is, a total process window of about 33% around and with respect to the central value within the window. The flow window should translate to the slightly different conditions of TABLE 2.

Replace all claims with:

1. (Twice Amended) A process for etching an oxide layer in the presence of a nitride layer, wherein said oxide layer is preformed with holes extending downwardly from a top surface thereof and corners of said oxide layer at tops of said holes are exposed during the process, said process comprising the steps of: